The SELA Report

Southeast Louisiana Flood Control Project

Number 2

Summer 1998

US Army Corps of Engineers
New Orleans District

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SELA at Work:
Keeping Water at Bay

Although canals and pumping stations may not be the stuff of most people's dreams, to residents of Jefferson, Orleans, and St. Tammany parishes they represent the last, best defense against rainwater flooding.

The Southeastern Louisiana Urban Flood Control Project (SELA) promises to make major advances in the struggle to move water out of the streets by significantly increasing the capacity of both canals and pumping stations.

Since SELA's creation in 1996:

- The U.S. Army Corps of Engineers has completed reconnaissance studies establishing cost-effectiveness of improvements in Orleans, Jefferson and St. Tammany parishes.
- The federal government has authorized $300 million for construction projects in the three parishes.
- Jefferson and Orleans parishes have committed to sponsoring SELA projects by agreeing to fund the required 25 percent local monies match.

Today, SELA work continues:

- Jefferson Parish has eight projects under construction and has scheduled ten more projects to begin construction by the end of 1998.
- Orleans Parish has one project under construction and three projects scheduled to start construction by the end of 1998.
- Slidell, in St. Tammany Parish, is considering new options after a proposal for a 1/4 cent sales tax increase to meet the 25 percent local match failed there.
- Information is being published to inform the public about the benefits, location and timetables of construction.

Widening, deepening and lining existing canals and construction of additional canals will result in 167,200 linear feet of enhanced and new canals for the three parishes. The region's pumping systems will also be improved by nearly 11,000 cubic feet per second (cfs). Once completed, SELA's improvements to the existing systems and the construction of new canals and pumps will prepare the parishes to handle all but the very worst rainfalls. ◆

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The SELA Report is published twice a year by the U.S. Army Corps of Engineers to communicate news and issues of interest related to urban flood control in southeastern Louisiana.

SELA is a joint effort of the U.S. Army Corps of Engineers, and Jefferson, Orleans and St. Tammany parishes to reduce rainfall flooding. The program uses federal and locally-matched funds.

Please address all questions, comments and suggestions to the address at right.

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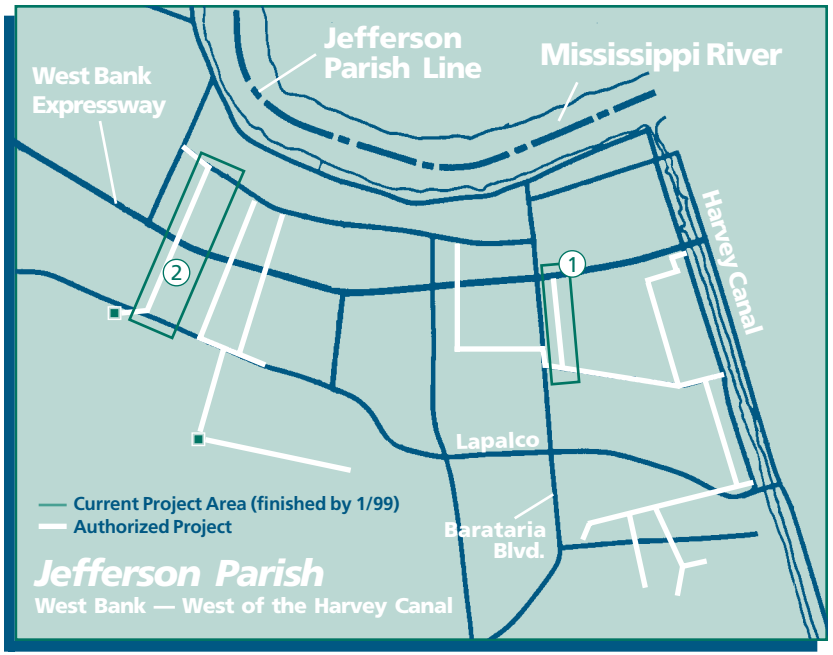
JEFFERSON PARISH

Jefferson Parish Sees Dry Land Ahead

Since the catastrophic flood of 1978, Jefferson Parish has made a concerted effort to address its chronic problem with rainwater flooding.



That effort consists of a proposed network of projects spread throughout the parish ranging from canal and sub-surface drainage improvements to increasing the capacity of pumping stations. Thirty-nine projects fall under SELA sponsorship, and of these, eight are currently under construction, with completion this year anticipated on four. Construction of an additional 10 projects will begin by the end of 1998.

The following is a summary of the projects near completion on the West Bank and west of the Harvey Canal, and East Bank of Jefferson Parish.

1 Avenue D Canal

Each day of construction means nearly 30 linear feet of progress on this $1.5 million canal project, with completion expected in August. Workers begin by driving sheet piling into the canal to prevent the walls from caving in while they work. Once the pilings create a safety zone, workers pour concrete into steel forms to construct the sides and bottom of the 10-foot-wide U-Frame. After the concrete has set, the pilings are removed and put in place farther up the canal.

When completed, the canal will be 2,130 feet long.The land around the finished construction will be seeded and fertilized to restore the landscape.

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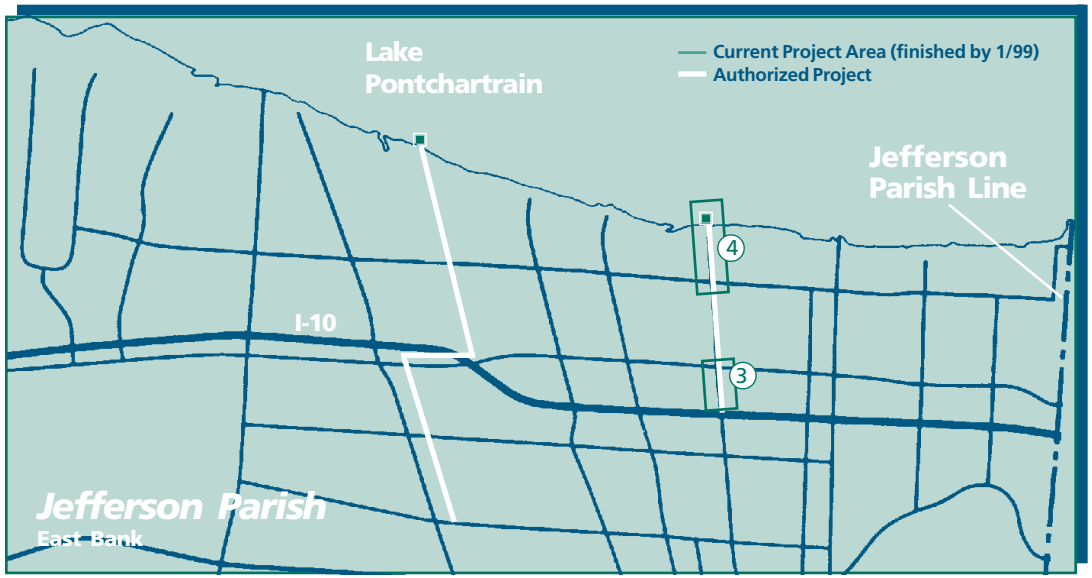
Jefferson Parish Sees Dry Land Ahead / continued from page 3

2

Keyhole Canal

Construction on this $1.2 million earthen channel project will widen the channel to increase its drainage capacity. The sides of the channel are also slope paved to protect the banks. Because of the available surrounding land, it was possible to widen the channel instead of having to pour concrete on the bottom to increase water speed. Work on the channel has blocked streets that run close to the improvements, but there have been no serious problems with the construction. The 4,870 feet of improved earthen channel should be completed in November.

Temporary dams are easily eroded away in heavy rainfall.



Projects near completion on the East Bank of Jefferson Parish include the following:

3

Suburban Canal — I-10 to Veterans Boulevard

This $4.5 million canal effort is one of three SELA-sponsored Suburban Canal projects that drain the increased capacity of Pumping Station #2. Construction on a section of this wet canal begins with the erection of a temporary earthen dam to keep water out of the construction area. The temporary dams are easily eroded away in heavy rainfall, as was evidenced in the torrents of April. During construction, pilings are continuously driven into the ground so forms can be laid for the 1,800 feet of concrete U-Frame. Construction for this project has run smoothly and should be completed in November.

4

Suburban Canal — West Esplanade To Pumping Station #2

This second Suburban Canal project will further improve drainage capacity for the pump station. Construction on this

1,130-foot project includes pouring slope pavement down to one foot below the average water level in the canal. Below the paved slope, and on the bottom of the canal, workers place riprap (rock) to prevent scouring from the water rushing into the pump station.

Thirty-nine of Jefferson Parish's rainfall flood control projects fall under SELA sponsorship.

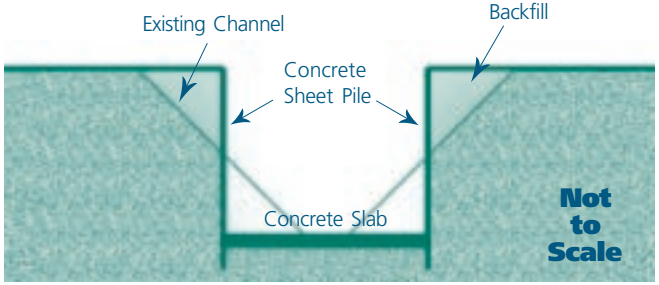
Construction was delayed for a time because of design-related access problems for residents, but plans have been reworked and construction is back on track. Completion of this $2 million canal project is anticipated in late January to February 1999.◆

Canal Construction Varies From Site to Site

When constructing new canals or improving existing ones, SELA engineers use two common designs: flumes and earthen channels. These cross-section illustrations show the difference. ◆

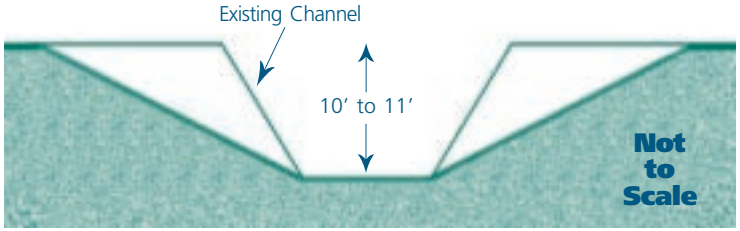
Flume

Flumes are artificially constructed water channels that commonly replace existing earthen channels. A typical flume is 20 feet wide with a depth of 10 to 12 feet.



Earthen Channel

Earthen channels are a cost-effective alternative to flumes or concrete-lined channels. Existing channels are improved by widening them and increasing the slope of the channel walls.



Pumps and Canals in the Works for Orleans Parish

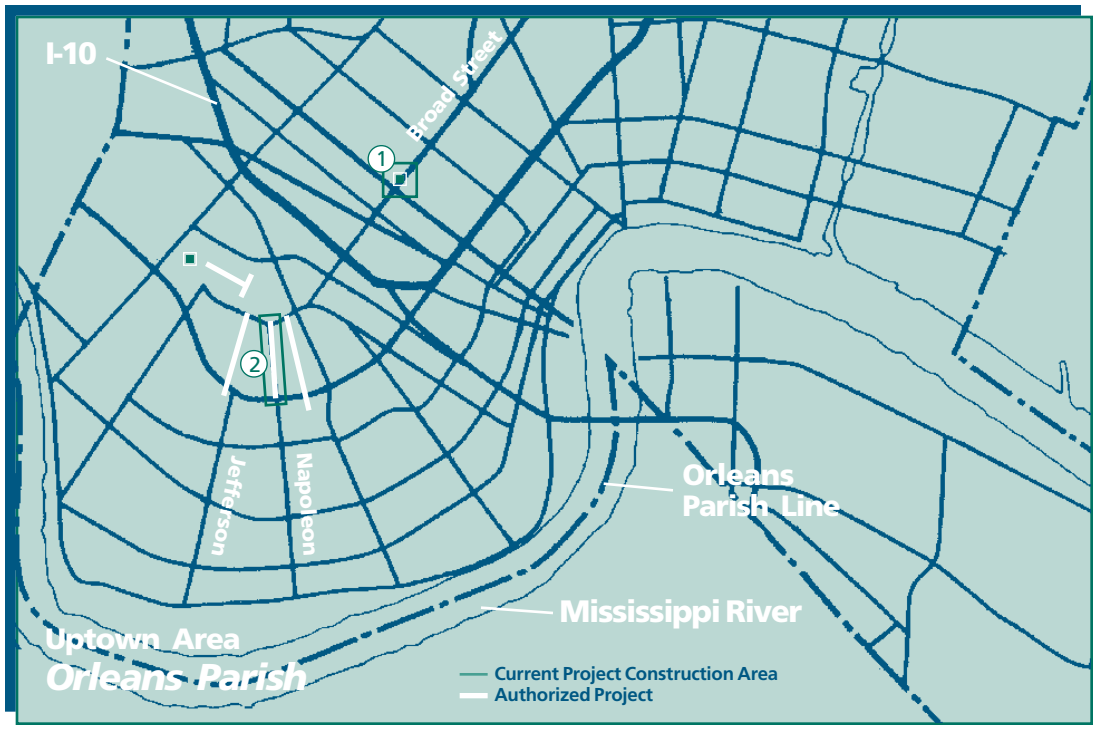
As anyone in Orleans Parish can tell you, the levee system that performs so well at holding water out when the Mississippi River is high also has a flip side — it does an equally efficient job of holding rainwater in.

And when rain falls at torrential rates of 10 to 12 inches per hour, that protective levee quickly turns streets throughout the parish into destructive rivers.

This year, however, the Orleans Sewerage and Water Board is working on four SELA projects it believes will be a critical first step in providing long-term relief from rainwater flooding in the parish.

1 Pumping Station Number One

Construction began on this pumping station located on South Broad Street in August of last year. The project will increase the station's pumping capacity by 538,500 gallons per minute (GPM). Two new 1,200 cubic feet per second (cfs)

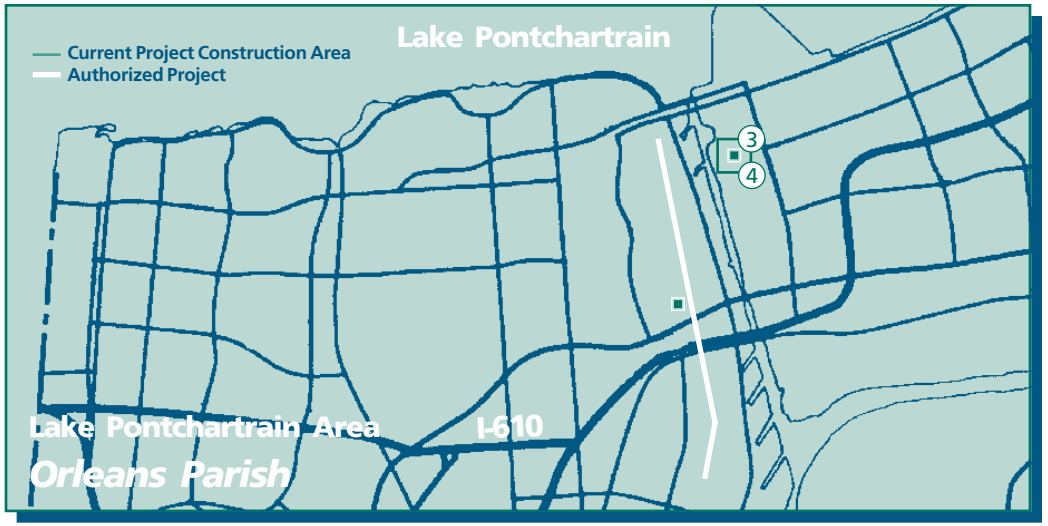


pumps will increase the station's total capacity to 2.6 million gallons per minute. Due to an increase in scope, the contract had to be terminated, and a new contract is scheduled to start in Janujary 1999. Work on this major project is now expected to be completed in mid-2001.

2 Napoleon Avenue Canals

Two new canals will be built under Napoleon Avenue from South Claiborne Avenue to Fontainebleau Drive beginning in October. The two 19-foot-wide by 13-foot-high canals will run parallel to an existing 20-foot by 12-foot canal. Together, the new canals will triple the capacity of the current canal, which will remain in use during construction and after the new canals are completed in October 2000. Two future projects will connect the Napoleon Avenue canals with South Claiborne Manifold canals from Nashville Avenue to Jena Street and from Jena to Louisiana Avenue.

At Napoleon Avenue, the current canal will remain in use during construction and after the new canals are completed.



3 Dwyer Road Pump Station

The goal of this project is to increase the station's pumping capacity by 875 cubic feet per second (cfs). Construction is scheduled to begin in November. Once work is completed, the station will have a total pumping capacity of 1,000 cfs. The $10 million project is expected to be completed by the end of 2000.

4 Dwyer Road Discharge Canal

Improvements on the discharge canal will increase its capacity to accommodate the pump station's new 1,000 cfs output. Work on the $4 million project is scheduled to begin in October. The canal's completion is anticipated by the end of April 2000. ◆

St. Tammany Parish

Voters Reject Tax: St. Tammany Pushes On

Slidell's rejection of a 1/4 cent sales tax increase in April was a setback for SELA in St. Tammany Parish.

With residents unwilling to increase taxes after passing a 1/2 cent increase just three months earlier, Slidell officials will not have the revenue needed for the local match required to qualify Slidell for $25 million in federal dollars for two proposed SELA projects. Because of the lack of funding, Slidell area projects remain inactive as local officials look for alternative funds and consider paring down the projects. Meanwhile, four St. Tammany projects continue to move through the planning phase while another faces reevaluation.

In Planning

Three structure-raising projects will lift homes and businesses above the 100-year floodplain. These projects offer a low-cost alternative to parishes, requiring them to pay only a portion of the design. Building owners must fund the required 25 percent of construction costs.

1 **Bayou Chinchuba Structure Raising**

This project will lift approximately 35 structures.

2 **LaCombe Structure Raising**

About 85 structures will be raised by this project.

3 **Abita Springs Structure Raising**

Approximately 45 structures to be raised.

4 **Mile Branch**

A fourth project will spend approximately $4.2 million to enlarge and clear channels as well as repair or replace bridges.

Under Reevaluation

5 **Mandeville Hurricane Protection**

This project previously included levees and floodwalls to protect the lakefront community. Residents preferred to keep the area's natural beauty intact and requested a structure-raising plan instead. The new plan is currently being evaluated. ◆